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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,111	03/19/2004	Masahide Yatsu	008312-0308848	7105

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EXAMINER

HABERMEHL, JAMES LEE

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,111

Applicant(s)

YATSU, MASAHIDE

Examiner

James L Habermehl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004 and 28 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>19 Mar 04 and 28 Dec 04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ehrlich et al. Ehrlich et al. Figures 1-2 and 9-12 meet all the limitations of claims 1 and 7, including controlling the actuator based on a basic servo pattern recorded on one disk surface and positioning the head at a target position (col. 15, lines 28-35), calculating a shape distortion of the basic servo patterns with respect to an ideal shape (col. 15, lines 54-55), correcting a position of the head with a calculated shape distortion amount (col. 15, lines 57-59), and writing a new servo pattern in the vicinity of the basic servo pattern with the head whose position is corrected (col. 15, lines 61-63).

Regarding claim 2 and 10, Ehrlich et al. shows observing a positional error value and using it to calculate a shape of the basic servo patterns, wherein the shape distortion of the basic servo patterns with reference to the ideal shape is calculated in accordance with the calculated shape of the basic servo patterns (col. 16, lines 3-10).

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Regarding claims 3 and 13, Ehrlich et al. shows deleting the basic servo pattern by overwriting it with user data using the head controlled based on the new servo pattern (col. 15, lines 36-37).

Regarding claims 4 and 12, Ehrlich et al. shows deleting the basic servo pattern after the new servo pattern is written (col. 15, lines 35-36 and col. 18, lines 19-22).

Regarding claims 5 and 14, Ehrlich et al. shows recording the basic servo pattern on a first surface but not a second surface, simultaneously positioning first and second heads controlled by the basic servo pattern read by the first head, and simultaneously writing new servo patterns to both surfaces (col. 17, line 66 through col. 18, line 1 and col. 18, lines 18-19 in accordance with the bank writing shown in col. 17).

Regarding claim 6, Ehrlich et al. measures writing accuracy of the basic servo pattern when it calculates the RRO, and writes the new servo pattern based on the measurement as disclosed herein, which the examiner interprets to mean that Ehrlich et al. discloses writing the new servo pattern based on the measurement when the writing accuracy is out of an allowable range of zero.

Regarding claim 8, Ehrlich et al. shows a head positioning unit based on the basic servo pattern and a unit for writing the new servo pattern (57, as disclosed herein) and a unit for deciding timing in a rotation direction (57, at col. 17, lines 35-38).

Regarding claim 9, Ehrlich et al. Figure 2 shows a microprocessor and memory storing a program configured to enable servowriting by causing the microprocessor to execute the program (54, 55, and 57).

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Regarding claim 11, Ehrlich et al. shows the basic servo pattern and the new servo pattern coexisting on the data surface after the new servo pattern is recorded (col. 10, lines 38-41 "although not necessarily" and col. 15, lines 35-37 "can").

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Belser et al. Figure 2, Sugiyama et al. Figures 2 and 8-10, and Szita et al. ('046) Figures 2 and 6-13 show writing basic and new servo patterns, Shepherd et al. (incorporated by reference into Ehrlich et al.) and Melrose et al. Figures 2 and 6-7 show calculating RRO/BCV/ERC values using DFT, Takaishi et al. Figure 17 shows writing servo from one disk to another, Sompel et al. Figures 2 and 4 show writing multiple servo patterns and then erasing the unused patterns, Szita et al. ('752) Figures 4 and 9 show measuring RRO during servowriting

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L Habermehl whose telephone number is (571)272-7556. The examiner can normally be reached on 8:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Habermehl/jlh
24 Mar 05



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